

**ABSTRACT**

A system and method for providing auxiliary power to a large diesel engine allowing shutdown of such large engine in all weather conditions. An auxiliary power unit made up of a secondary engine coupled to an electrical generator is provided. An  
5 automatic control system shuts down the primary engine after a period of idling and the auxiliary power unit provides electrical power for heating and air conditioning. In cold weather, the auxiliary power unit maintains the primary engine coolant and lube-oil warm to facilitate engine restart. The coolant system is kept warm using a heat exchanger and electrical heaters. The lube-oil system is kept warm using a recirculating pump and  
10 electrical heaters. In warm weather, the auxiliary power unit provides electrical power for air conditioning and other hotel loads. The auxiliary power unit isolates the primary engine batteries during operation and provides electrical power for hotel and non-vital loads.